

## REMARKS

Appended to this response is a copy of the original Declaration that provides the information requested by the Examiner.

The Abstract has been amended to reduce its length.

Claims 3 and 4 have been amended to cure the purported points of unclarity noted by the Examiner, and should be free of rejection under 35 U.S.C. 112, second paragraph.

The allowance of claims 12-16 is noted with appreciation.

Claims 2 and 8 were objected to and, in response, have been rewritten in independent form to incorporate the subject matter of their respective base claims. It is noted that in rewriting claim 2 that the "steps of" language has been deleted, and that in rewriting claim 8 a clarification was made to refer to "shifting circuitry" in both the receiver and transmitter, to thereby provide antecedent basis for the recited "said shifting circuitry of said transmitter and said receiver". Claims 2 and 8 should also be in condition for allowance.

It is made of record that the re-writing of claims 2 and 8 was not made for a reason related to patentability, as their respective independent claims are deemed to be patentable and remain pending. As such, the full range of equivalents for all elements of claims 2 and 8 should remain intact.

Claims 1, 3, 5, 6, 7, 9 and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by Ariyoshi et al. (US 5,930,244), while claims 4 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ariyoshi et al. in view of Sezgin et al. (US 2002/0118705 A1). These rejections are respectfully disagreed with, and are traversed below.

The Examiner is respectfully reminded that for a rejection to be made on the basis of Section

102(b), it is well recognized that "to constitute an anticipation, all material elements recited in a claim must be found in one unit of prior art", Ex Parte Gould, BPAI, 6 USPQ 2d, 1680, 1682 (1987), citing with approval In re Marshall, 578 F.2d 301, 304, 198 USPQ 344, 346 (CCPA 1978).

In the instant case, claim 1 refers in part to "receiving a first carrier and deriving a receiver tracking signal that is indicative of a frequency shift between the received first carrier and a reference signal", that is, claim 1 refers to carrier tracking, whereas Ariyoshi are clearly discussing PN code phase tracking at col. 6, lines 51-65 and col. 7, lines 11-24 (see, in particular, col. 6, lines 31-50, which places the description of lines 51-65 in context). As those skilled in the art are aware, the dynamics of carrier phase are generally significantly greater than code phase, the methods of phase error detection (carrier vs. code) are very different, and the carrier phase repeats at a much higher rate than the code phase.

For this reason alone claim 1 is not anticipated by Ariyoshi et al., and the same argument can be advanced for independent claim 7.

Further, while Ariyoshi et al. discuss correcting a transmitted waveform, they apparently use commands received over a link (e.g., P<sub>Ji</sub> and P<sub>Ci</sub>, as stated in col. 4, lines 35-43 in reference to Figure 1), whereas claim 1 refers in part to "shifting a transmitter baseband signal by an amount indicated by the receiver tracking signal during the receive period", where the receiver tracking signal is one that is derived to be "indicative of a frequency shift between the received first carrier and a reference signal".

For this reason alone claim 1 is not anticipated by Ariyoshi et al., and the same argument can be advanced for independent claim 7.

Note as well that, for example, claim 7 refers in part to "generating a frequency for a transmitter baseband signal that is shifted by an amount indicated by the receiver tracking signal", where the correction used by Ariyoshi et al. is phase correction (and, again, in col. 7, lines 25-44 it appears

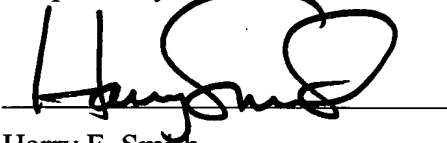
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that only adjustment of PN code phase is being discussed).

Based on the foregoing arguments it should be clear that the independent claims 1 and 7 are not anticipated by Ariyoshi et al. and neither are these claims rendered obvious by Ariyoshi et al. This being the case, each of claims 1, 3-5, 6, 7 and 9-11 should be found to be allowable over Ariyoshi et al., whether the teachings of Sezgin et al. are considered or not.

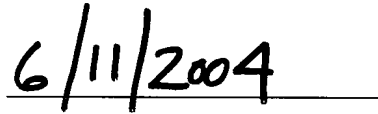
The Examiner is respectfully requested to reconsider and remove the rejections of claims 1, 3-5, 6, 7 and 9-11, and to also allow these claims. An early notification of the allowability of pending claims 1-16 is earnestly solicited.

Respectfully submitted:



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Date

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**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**

Docket No. 907.0009USU

As below named inventors, we hereby declare that:

Our residences, post office addresses and citizenships are as stated below next to our respective names.

We believe we are the original, joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**DIGITAL REVERSE TRANSMISSION FREQUENCY TRAINING METHOD FOR TIME  
DIVISION DUPLEX (TDD) COMMUNICATION SYSTEM**

**RECEIVED**

the specification of which

JUN 23 2004

(check one)   X   is attached hereto.

Technology Center 2600

\_\_\_\_\_ was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_  
and was amended on \_\_\_\_\_ (if applicable).

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to us to be material to the patentability of this application as defined in Title 37, Code of Federal Regulations, §1.56.

We hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate(s) listed below and have also identified below any foreign application(s) for patent or inventor's certificate(s) having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

_____ (Number)	_____ (Country)	_____ (Day/Mon/Year Filed)	____ Yes ____ No
_____ (Number)	_____ (Country)	_____ (Day/Mon/Year Filed)	____ Yes ____ No

We hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status - patent, pend., abandon)
(Application Serial No.)	(Filing Date)	(Status - patent, pend., abandon.)

**POWER OF ATTORNEY:** As named inventors, we hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

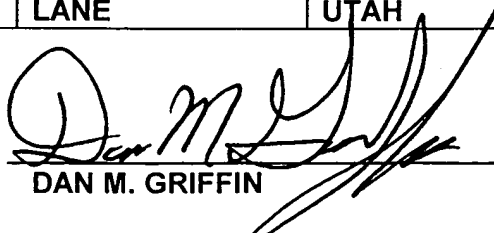
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We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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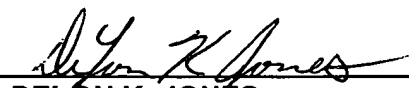
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